

SUBSTITUTE FORM PTO-1449
(MODIFIED)U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICEATTY. DOCKET NO.
00786-287004SERIAL NO.
UnknownINFORMATION DISCLOSURE
STATEMENT BY APPLICANT
(Use several sheets if necessary)APPLICANT
Shuping Tong et al.FILING DATE
March 26, 2001GROUP
Unknown

(37 CFR 1.98(b))

U.S. PATENT DOCUMENTS

| EXAMINER INITIAL | PATENT NUMBER | ISSUE DATE | PATENTEE | CLASS | SUBCLASS | FILING DATE IF APPROPRIATE |
|---------------------|---------------|---------------|----------|-------|----------|-------------------------------|
| AA | | | | | | |
| AB | | | | | | |

FOREIGN PATENT OR PUBLISHED FOREIGN PATENT APPLICATION

| | DOCUMENT NUMBER | PUBLICATION DATE | COUNTRY OR PATENT OFFICE | CLASS | SUBCLASS | TRANSLATION | |
|----|-----------------|---------------------|-----------------------------|-------|----------|-------------|----|
| | | | | | | YES | NO |
| AC | | | | | | | |
| AD | | | | | | | |

OTHER DOCUMENTS (Including Author, Title, Date, Place of Publication)

| | | |
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| 64 | AE | Grgacic et al., J. Virol. 68:7344-7350, 1994; "The Large Protein of Duck Hepatitis B Virus Is Phosphorylated in the Pre-S Domain" |
| | AF | Macrae et al., Virology 181:359-363, 1991; "Myristylation of a Duck Hepatitis B Virus Envelope Protein Is Essential for Infectivity but Not for Virus Assembly" |
| | AG | Persing et al., J. Virol. 61:1672-1677, 1987; "The preS1 Protein of Hepatitis B Virus Is Acylated at Its Amino Terminus with Myristic Acid" |
| | AH | Fernholz et al., Virology 197:64-73, 1993; "Minor Envelope Proteins of Duck Hepatitis B Virus Are Initiated at Internal Pre-S AUG Codons but Are Not Essential for Infectivity" |
| | AI | Summers et al., J. Virol. 65:1310-1317, 1991; "Morphogenetic and Regulatory Effects of Mutations in the Envelope Proteins of an Avian Hepadnavirus" |
| | AJ | Sureau et al., J. Virol. 67:366-372, 1993; "Role of the Large Hepatitis B Virus Envelope Protein in Infectivity of the Hepatitis Delta Virion" |
| | AK | Budkowska et al., J. 67:4316-4322, 1993; "Hepatitis B Virus (HBV) Binding Factor in Human Serum: Candidate for a Soluble Form of Hepatocyte HBV Receptor" |
| | AL | Budkowska et al., J. Virol. 69:840-848, 1995; "Fibronectin of Human Liver Sinusoids Binds Hepatitis B Virus: Identification by an Anti-Idiotypic Antibody Bearing the Internal Image of the Pre-S2 Domain" |
| | AM | Hertogs et al., Virology 197:549-557, 1993; "Endonexin II, Present on Human Liver Plasma Membranes, Is a Specific Binding Protein of Small Hepatitis B Virus (HBV) Envelope Protein" |
| ✓ | AN | Mehdi et al., J. Virol. 68:2415-2424, 1994; "Hepatitis B Virus Surface Antigen Binds to Apolipoprotein H" |

EXAMINER

Trenda Gumback

DATE CONSIDERED

5-11-02

EXAMINER: Initial citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

SUBSTITUTE FORM PTO-1449
(MODIFIED)U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICEATTY DOCKET NO.
00786-287004SERIAL NO. 09/818,066
~~Unknown~~INFORMATION DISCLOSURE
STATEMENT BY APPLICANT
(Use several sheets if necessary)APPLICANT
Shuping Tong et al.

(37 CFR 1.98(b))

FILING DATE
March 26, 2001GROUP
~~Unknown~~ 1648

U.S. PATENT DOCUMENTS

| EXAMINER INITIAL | PATENT NUMBER | ISSUE DATE | PATENTEE | CLASS | SUBCLASS | FILING DATE IF APPROPRIATE |
|---------------------|---------------|---------------|----------|-------|----------|-------------------------------|
| BA | | | | | | |

FOREIGN PATENT OR PUBLISHED FOREIGN PATENT APPLICATION

| | DOCUMENT NUMBER | PUBLICATION DATE | COUNTRY OR PATENT OFFICE | CLASS | SUBCLASS | TRANSLATION | |
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| | | | | | | YES | NO |
| BB | | | | | | | |
| BC | | | | | | | |

OTHER DOCUMENTS (Including Author, Title, Date, Place of Publication)

| | | |
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| 64 | BD | Neurath et al., J. Exp. Med. 176:1561-1569, 1992; "Cells Transfected with Human Interleukin 6 cDNA |
| | | Acquire Binding Sites for the Hepatitis B Virus Envelope Protein" |
| - | BE | Pontisso et al., J. Gen. Virol. 73:2041-2045, 1992; "the preS1 domain of hepatitis B virus and IgA |
| | | cross-react in their binding to the hepatocyte surface" |
| | BF | Pugh et al., Virology 172:564-572, 1989; "Infection and Uptake of Duck Hepatitis B Virus by Duck |
| | | Hepatocytes Maintained in the Presence of Dimethyl Sulfoxide" |
| | BG | Tuttleman et al., J. Virol. 58:17-25, 1986; "In Vitro Experimental Infection of Primary Duck Hepatocyte |
| | | Cultures with Duck Hepatitis B Virus" |
| | BH | Mandart et al., J. Virol., 49:782-792, 1984; "Nucleotide Sequence of a Cloned Duck Hepatitis B Virus |
| | | Genome: Comparison with Woodchuck and Human Hepatitis B Virus Sequences" |
| | BI | Worder et al., Virology, 198:489-503, 1994; "Complete Genomes, Phylogenetic Relatedness, and Structural |
| | | Proteins of Six Strains of the Hepatitis B Virus, Four of Which Represent Two New Genotypes" |
| | BJ | Wang et al., Nature, 323:508-13, 1986; "Structure, sequence and expression of the hepatitis delta |
| | | (δ) viral genome" |
| | BK | Mason et al., J. Virol. 36:829-36, 1978; "Virus of Pekin Ducks with Structural and Biological |
| | | Relatedness to Human Hepatitis B Virus" |
| | BL | Sprengel et al., J. Virol., 62:3832-39, 1988; "Isolation and Characterization of a Hepatitis B |
| | | Virus Endemic in Herons" |
| ✓ | BM | Summers et al., Proc. Natl. Acad. Sci. USA, 75:4533-37, 1978; "A virus similar to human hepatitis B |
| | | virus associated with hepatitis and hepatoma in woodchucks" |

EXAMINER

Freenda Trumbull

DATE CONSIDERED

5-11-02

EXAMINER: Initial citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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| SUBSTITUTE FORM PTO-1449 (MODIFIED) | | DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE | | ATTY. DOCKET NO. 00786-287004 | | SERIAL NO. 09/818,066 <u>Unknown</u> | |
| INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary) (37 CFR 1.98(b)) | | | | APPLICANT Shuping Tong et al. | | GROUP Unknown 1648 | |
| | | | | FILING DATE March 26, 2001 | | | |
| U.S. PATENT DOCUMENTS | | | | | | | |
| EXAMINER INITIAL | | PATENT NUMBER | ISSUE DATE | PATENTEE | CLASS | SUBCLASS | FILING DATE IF APPROPRIATE |
| | CA | | | | | | |
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| FOREIGN PATENT OR PUBLISHED FOREIGN PATENT APPLICATION | | | | | | | |
| | | DOCUMENT NUMBER | PUBLICATION DATE | COUNTRY OR PATENT OFFICE | CLASS | SUBCLASS | TRANSLATION YES NO |
| | CC | | | | | | |
| | CD | | | | | | |
| OTHER DOCUMENTS (Including Author, Title, Date, Place of Publication) | | | | | | | |
| bb | CE | Marion et al., Proc. Natl. Acad. Sci. USA, 77:2941-45, 1980; "A virus in Beechey ground squirrels that | | | | | |
| | | is related to hepatitis B virus of humans" | | | | | |
| | CF | Mason et al., Hepatology, 9:635-645, 1989; "Experimental Systems for the Study of Hepadnavirus | | | | | |
| | | and Hepatitis Delta Virus Infections" | | | | | |
| | CG | Yuasa et al., Virology 181:14-21, 1991; "Peptide Mapping of Neutralizing and Nonneutralizing Epitopes | | | | | |
| | | of Duck Hepatitis B Virus Pre-S Polypeptide" | | | | | |
| | CH | Chassot et al., Virology 192:217-223, 1993; "Fine Mapping of Neutralization Epitopes on Duck Hepatitis B | | | | | |
| | | Virus (DHBV) pre-S Protein Using Monoclonal Antibodies and Overlapping Peptides" | | | | | |
| V | CI | Lu et al., J. Virol. 70:2277-2285, 1996; "Protease-Induced Infectivity of Hepatitis B Virus for a | | | | | |
| | | Human Hepatoblastoma Cell Line | | | | | |
| | CJ | | | | | | |
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| EXAMINER <i>Freida Trumbach</i> | | | | DATE CONSIDERED 5-11-02 | | | |
| EXAMINER: Initial citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. | | | | | | | |

Substitute Disclosure Form (PTO-1449)

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| Substitute Form PTO-1449 (Modified) | U.S. Department of Commerce Patent and Trademark Office | Attorney's Docket No. 00786-287004 | Application No. Unknown 09/818,066 |
| Information Disclosure Statement by Applicant (Use several sheets if necessary) (37 CFR §1.98(b)) | | Applicant Shuping Tong et al. | |
| | | Filing Date March 26, 2001 | Group Art Unit Unknown 1648 |

| U.S. Patent Documents | | | | | | | |
|-----------------------|-----------|---------------|------------|----------|-------|----------|----------------------------|
| Examiner Initial | Desig. ID | Patent Number | Issue Date | Patentee | Class | Subclass | Filing Date If Appropriate |
| | AA | | | | | | |
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| Foreign Patent Documents or Published Foreign Patent Applications | | | | | | | | |
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| Examiner Initial | Desig. ID | Document Number | Publication Date | Country or Patent Office | Class | Subclass | Translation | |
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| | AL | | | | | | | |
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| Other Documents (include Author, Title, Date, and Place of Publication) | | |
|---|-----------|---|
| Examiner Initial | Desig. ID | Document |
| bb | AQ | Kume et al., The Journal of Biological Chemistry, 266(5):3323-3329 |
| ↓ | AR | Database GenEmbl on Gencore, Accession No. M64402 J05742 and D90266 |
| ↓ | AS | Database Pir51 on MPSRCH, Accession No. A39521 |
| | AT | |

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| Examiner Signature <i>Frederick Humback</i> | Date Considered 5-11-02 |
| EXAMINER: Initials citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. | |